User's Manual

638UA
MP3-Compatible
In-Dash AM/FM
CD Receiver
with Front Panel USB and
SD Memory Card Ports
and Front Panel AUX Input

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AUDIO SYSTEMS

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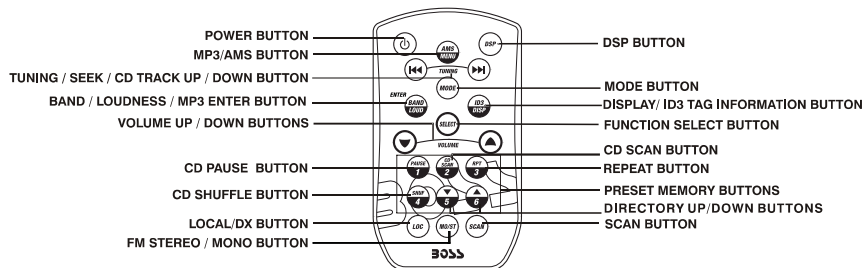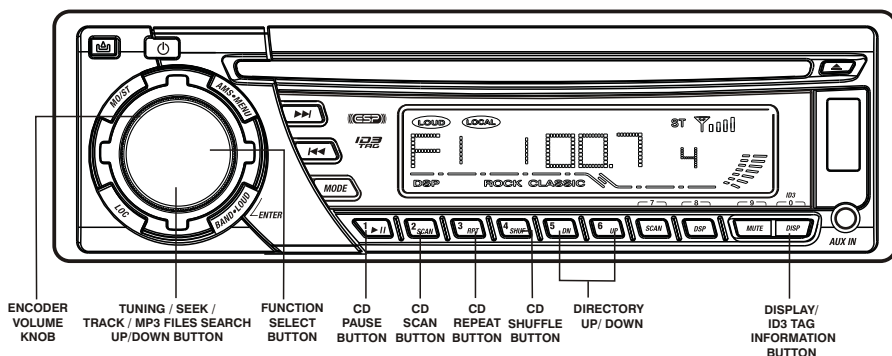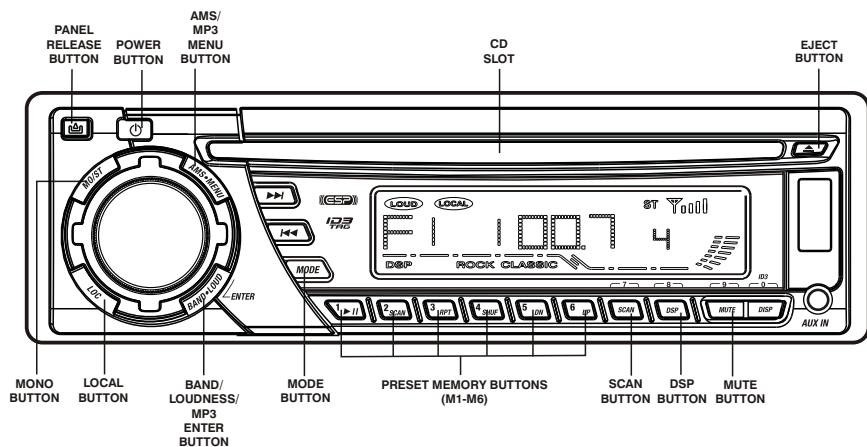*www.bossaudio.com*
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AUDIO SYSTEMS

INSTRUCTION MANUAL

MP3-Compatible In-Dash AM/FM Receiver
with Front Panel USB and SD Memory Card Ports
and Front Panel AUX Input

PANEL RELEASE BUTTON — POWER BUTTON — AMS/ MP3 MENU BUTTON — CD SLOT — EJECT BUTTON

MONO BUTTON — LOCAL BUTTON — BAND/ LOUDNESS/ MP3 ENTER BUTTON — MODE BUTTON — PRESET MEMORY BUTTONS (M1-M6) — SCAN BUTTON — DSP BUTTON — MUTE BUTTON

ENCODER VOLUME KNOB — TUNING / SEEK / TRACK / MP3 FILES SEARCH UP/DOWN BUTTON — FUNCTION SELECT BUTTON — CD PAUSE BUTTON — CD SCAN BUTTON — CD REPEAT BUTTON — CD SHUFFLE BUTTON — DIRECTORY UP/ DOWN — DISPLAY/ ID3 TAG INFORMATION BUTTON

POWER BUTTON — DSP BUTTON

MP3/AMS BUTTON

TUNING / SEEK / CD TRACK UP / DOWN BUTTON — MODE BUTTON

BAND / LOUDNESS / MP3 ENTER BUTTON — DISPLAY/ ID3 TAG INFORMATION BUTTON

VOLUME UP / DOWN BUTTONS — FUNCTION SELECT BUTTON

CD PAUSE BUTTON — CD SCAN BUTTON

REPEAT BUTTON

CD SHUFFLE BUTTON — PRESET MEMORY BUTTONS

DIRECTORY UP/DOWN BUTTONS

LOCAL/DX BUTTON — SCAN BUTTON

FM STEREO / MONO BUTTON

REMOTE CONTROL

HANDLING COMPACT DISCS
MOISTURE CONDENSATION

On a rainy day or in a very damp area, moisture may condense on the lenses inside the unit. Should this occur, the unit will not operate properly. In such a case, remove the disc and wait for about an hour until the moisture has evaporated.

NOTES ON CDs

1. A dirty or defective disc may cause sound dropouts while playing. To enjoy optimum sound, handle the disc as follows.
   Handle the disc by its edge. To keep the disc clean, do not touch the surface (P.1).

P. 1

2. Do not stick paper or tape on the disc (P.2).

P. 2

3. Do not expose the discs to direct sunlight or heat sources such as hot air-ducts, or leave them in a car parked in direct sunlight where there can be a considerable rise in temperature inside the car (P.3).

P. 3

4. Before playing, clean the discs with an optional cleaning cloth. Wipe each disc from the centre out (P.4).

P. 4

5. Do not use solvents such as benzine, thinner,commercially available cleaners, or antistatic spray intended for analog discs.

NOTES ON DISCS

If you use the discs explained below, the sticky residue can cause the CD to stop spinning and may cause malfunction or ruin your discs.
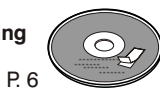
Do not use second-hand or rental CDs that have a sticky residue on the surface (for example, from peeled-off stickers or from ink, or glue leaking from under the stickers).
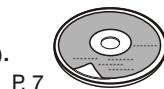
There are paste residue. Ink is sticky (P.5).

P. 5

Do not use rental CDs with old labels that are beginning to peel off.

Stickers that are beginning to peel away, leaving a sticky residue (P.6).

P. 6

Do not use your CDs with labels or stickers attached.

Labels are attached (P.7).

P. 7

Do Not Use Special Shape CDs
Be sure to use round shape CDs only for this unit and do not use any special shape CDs. Use of special shape CDs may cause the unit to malfunction.(P.8).

P. 8

Be sure to use CDs with disc mark CD-Rs and CD-RWs which have not undergone finalization processing cannot be played. (For more information on finalization processing, refer to the manual for your CD-R/CD-RW writing software or CD-R/CD-RW recorder.) Additionally, depending on the recording status, it may prove impossible to play certain CDs record on CD-R or CD-RW.

INSTALLATION

- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.I
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.

30°

- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from heater, or where it would be subject to dust dirt or excessive vibration.
- Be sure to remove the front panel before installing the unit.

RCA LINE OUT JACK(OPTION)

DIN FRONT/REAR-MOUNT

This unit can be property installed either from "Front" (conventional DIN Front-mount) or "Rear"(DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods A and B.

DIN FRONT-MOUNT (Method A)
Installation the unit
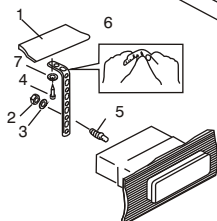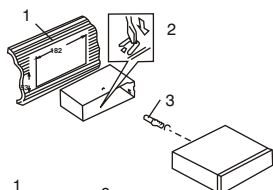
1. Dashboard
2. Holder
   After inserting the half sleeve into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.
3. Screw

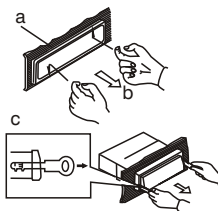1. Dashboard
2. Nut (5mm)
3. Spring washer
4. Screw (5x15mm)
5. Screw
6. Support Strap
   Be sure to use the support strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.
7. Plain washer

Removing the unit

a. Frame
b. Insert fingers into the groove in the front of frame and pull out to remove the frame. (When re-attaching the frame, point the side with a groove down wards and attach it.)
c. Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers makes it possible to remove the unit from the dashboard.
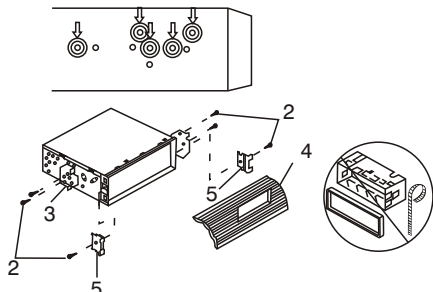
Trim Plate Installation:

Push the trim plate against the chassis until it is fitted**.**
You must do this before you install the front panel, otherwise it can't be attached.

DIN REAR-MOUNT (METHOD B)

Installation using the screw holes on the sides of the unit.
Fastening the unit to the factory radio mounting bracket.

1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted) and tighten the screws at 2 places on each side.
2. Screw(must not use more than 6mm length)
3. Factory radio mounting bracket.
4. Dashboard or Console
5. Hook (Remove this part)

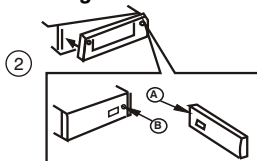Note: the mounting box, outer trim ring, and half-sleeve are not used for method B installation.

DETACHABLE CONTROL PANEL (D.C.P.)

Removing The Detachable Control Panel (D.C.P.).

PANEL RELEASE BUTTON

1. Turn the power off
2. Press the D.C.P. release button
3. Remove the D.C.P.

Attaching the DCP

1. Attach the panel at the right side first, with point B on the main unit touching point A on the D.C.P. (As shown on the digram).
2. Then press the left side of D.C.P. onto the main unit until a "click" sound is heard.

CAUTION

- DO NOT insert the D.C.P from the left side. Doing so may damage it.
- The D.C.P can easily be damaged by shocks. After removing it, place it in a protective case and be careful not to drop it or subject it to strong shocks.
- When the release button is pressed and the D.C.P is unlocked, the car's vibrations may cause it to fall. To prevent damage to the D.C.P, always store it in a protective case after detaching it.
- The rear connector that connects the main unit and the D.C.P is an extremely important part. Be careful not to damage it by pressing on it with fingernails, pens, screwdrivers, etc.
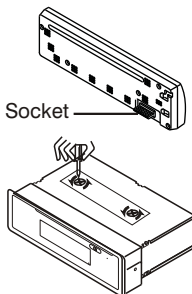
Socket

Note:
If the D.C.P is dirty, wipe off the dirt with soft, dry cloth only. And use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the D.C.P.

IMPORTANT

These 2 screws are used to prevent damage to the CD mechanism during transportation Please make sure to remove the 2 screws before installing the unit into the vehicle. DO NOT insert a CD into the unit before removing the 2 screws.

ELECTRICAL CONNECTION

a. Make sure your car battery is a 12 volt (6 filler caps) negative ground system (if not, a converter will be necessary).
b. Before starting wiring connections, disconnect the power supply by removing the fuse from the fuse box.
c. Connect the power wire to one of the extra terminals of the fuse box.
d. Connect the black ground wire to a metal part of the car. It is important to make good contact.
e. Make other wiring connections as shown.
f. If your car does not have ISO connector, you can procure it from any car accessory shop.

Notes: INCORRECT WIRING OR OPERATION WILL AVOID THE WARRANTY OF THIS UNIT.

(CAR UNIT BACK SIDE)

FUSE

Fuse Replacement:

To replace the fuse, pull out the blown fuse from the socket. Insert a new one with same rating.

BASIC OPERATIONS

PANEL RELEASE BUTTON
Press this button to remove the control panel.

POWER BUTTON
Press this button to turn on or off the power.

DISPLAY BUTTON
Press this button briefly, the LCD will display the clock for about 2 seconds, then return to previous display mode.
Clock Adjustment
Under clock display mode, press DISP button until the LCD flashes, press Tuning Up Button to adjust hour and Tuning Down Button to adjust minute.

MODE BUTTON
Press this button to select different mode, sequence as follow:

MODE PRIORITY
A) Tuner mode (Radio)
B) CDP/MP3 (only if a CD or Mp3 disc is inserted)
C) USB (only if a USB drive is inserted)
D) SD/MMC (only if a SD or MMC card is inserted)
E) AUX mode (only if this unit is equipped with this feature)
Whenever a USB or SD/MMC is being inserted, unit will automatically switch to USB or SD/MMC mode, does not matter the unit is currently in what mode.
When in USB or SD/MMC mode, if the USB or SD/MMC is being removed, unit will automatically switch to previous mode.

FRONT AUX INPUT
Connect the external signal to the front 3.5mm earphone jack on front panel, then press Mode button to select Aux mode. Press Mode Button again to cancel Aux Mode and return to previous mode.
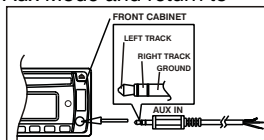

RESET BUTTON
The RESET button is located on the main unit (as shown on the diagram). To press it vertically with a ballpoint pen or metal object will activate it. The reset button is to be activated for the following reasons:

● Initial installation of the unit when all wiring is completed.
● All the function buttons do not operate.
● Error symbol on the display.

Note: If press RESET button, the unit still cannot function normally, please use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the control panel.
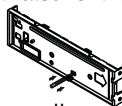
AUDIO OPERATIONS

ENCODER VOLUME KNOB
Turn this knob to adjust desired volume level.

FUNCTION SELECT BUTTON
Press this button to select desired audio function.

ORDER OF FUNCTION:
VOLUME(VOL) -> BASS(BAS) -> TREBLE(TRE) ->BALANCE(BAL) ->FADER(FAD)
While the selected function is displayed, turn Volume Knob to adjust the level within 5 seconds, otherwise the unit will return to volume adjustment mode.

MUTE BUTTON
Press this button to mute the sound. Press it again to resume listening.

DSP BUTTON (DIGITAL SOUND PROCESSOR)
Press this button to toggle the following EQ setting:

FLAT->CLASSICS->POP M->ROCK M->DSP OFF

At DSP OFF mode, EQ will be controlled by Bass/Treble setting.

BAND/LOUDNESS BUTTON
Press the Band/Loudness Button long to switch the loudness on or off. When Loudness is on, display will show 'Loud On' for a few seconds.

SCAN BUTTON
Press this button, the radio will tune up to search stations, the available stations will blinking and stay on the display for a few seconds.

LOCAL / DX BUTTON
This control can be used to change between Local and Distant (-DX) tuning mode. Local mode improves reception in some areas where the signal is too strong.

FM MONO / STEREO BUTTON (MONO)
Use this control to select stereo or monaural reception for FM radio stations. You can sometimes improve reception of distant stations by selecting mono mode.
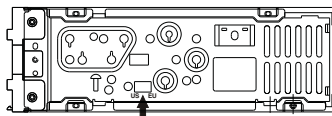
RADIO OPERATIONS

BAND/LOUDNESS BUTTON
This a dual function button. Press this button short to change between BAND FM1, FM2, Fm3 AM(MW) bands. Press it long to turn on or off Loudness function.

DUAL FREQUENCY SWITCH
Unit is defaulted in U.S.A frequency, if EURO frequency is required, a sharp pen is needed to switch the button on the left side of the chassis to EURO frequency.

TUNING / SEEK UP AND TUNING / SEEK DOWN BUTTONS
1. Press these buttons briefly will operate AUTO SEARCH tuning mode, the radio will tune up or down to the next station and remain on the frequency.

2. Press these buttons more than 2 seconds, operate as MANUAL SEARCH buttons, under this mode the tuning frequency will advance up or down rapidly when the button is pressed. If the buttons are not pressed within 3 seconds, they will return to auto search mode.

RADIO SIGNAL STRENGTH METER
This is use to indicate the signal strength of current radio station broadcast. When you choose RADIO mode, it will show on the display.

Best reception   Worst reception

AUTO MEMORY STORE/PRESET SCAN BUTTON (AMS)

1. PRESET SCAN: Press AMS button briefly enter Preset Scan mode, it will scan all the preset stations in the memories, you can hear that will stay on each station for about 5 seconds.

2. AUTO MEMORY STORE: Press AMS button long to enter Auto Store mode, this feature will automatically scan the current band and enter up to 6 strongest stations into the 6 preset memories. To stop Auto Store & Scan, press the AMS button again.

STATION PRESET BUTTONS (M1-M6)

1. Press these buttons briefly to recall the stored stations in the selected band.

2. Presetting stations manually, Press the BAND button to select the band for the station to be preset. Use Tuning Up/Down to tune in the stations to be preset. Press the Preset button at which you want to store the station for at least 2 second. The preset number will appear on the display accompanied by a beep, this indicate that the station has been stored into memory.

CD OPERATIONS

CD SLOT
Insert the disc into CD slot. The CD will begin to play.

CD PAUSE BUTTON
Press this button to pause CD play, press again to release pause.

CD SCAN BUTTON
Press this button, the first 10 seconds of each track will be played sequentially until this button is pressed again, then normal play will resume at the current track.

CD REPEAT BUTTON
Press this button, the current track will be played repeatedly until this button is pressed again.

CD SHUFFLE BUTTON
Press this button to play all tracks on CD in random. Press again to deactivate it.

EJECT BUTTON
Press this button to eject the CD from the unit. The receiver will switches to radio mode automatically.

TRACK UP AND TRACK DOWN BUTTON

Press the Track Up Button to skip to the next track or previous track. Press the Track Down button during play will return to the beginning of the current track, press it one more time to skip to previous skip. Press and hold Track Up/Down Button to fast forward or fast reverse. CD player starts when you release the button.

MMC/SD CARD & USB DEVICE OPERATIONS

START THE USB DEVICE MODE

1.The USB socket is accessible as indicated in picture 1.(P.1)

2.Plug in the USB drive / device completely as indicated in picture 2(P.2) and display will show "USB PLAY" to indicate that the USB drive / device is being plugged in correctly & the download has begun.

3.Does not matter the unit is in what mode (TUNER, CD, SD/MMC, etc), once a USB drive / device is being plugged into the unit, unit will automatically switch to USB mode.

4.All the USB files playback function is same as normal CD or MP3 disc playback.

Warning: Excessive weight or size USB drive/device may cause permanent & serious damage to the unit and may cause access to the buttons on the front panel impossible. User must use an extension cable (provide by USB device manufacturer) to connect with USB socket to prevent any damage cause.

TO STOP USB PLAYBACK

1.The USB drive / device is unplugged, the unit automatically switch to radio mode. Or user can use mode button to switch to other mode.

2.User can use the mode button to choose USB mode (only if USB drive / device is inserted in the unit) or any other modes, when they are in any mode.

USB SPECIFICATION
* SUPPORT MAX IG USB FLASH MEMORY
* SUPPORT MAX 255 SONGS
* USB 1.1 DEVICE SUPPORT
* USB 2.0 DEVICE SUPPORT
  (TRANSFER SPEED SAME AS VER 1.1)
* FILE MANAGER: FAT12/FAT16/FAT32
* CURRENT SUPPLY: MAX 500mA

CAUTION

1.Always unplugged the USB gently from the unit, excessive force used will cause permanent & serious damage to the unit & the USB drive / device.

COMPATIBILITY

Due to the fast changing technology world, this unit may or may not be compatible to all the USB drive / device available with all the future technology, especially those USB drive / device which require to install a driver. Always choose a compatible USB drive / device which is compatible with this unit.

NOTE:
This unit is not compatible with portable Hard-Disc.
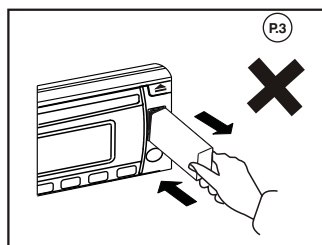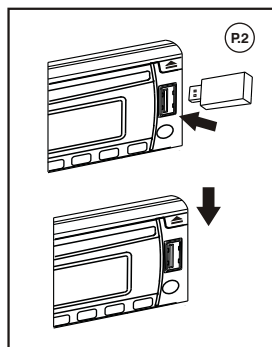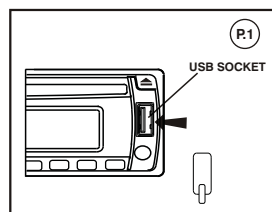
START THE SD/MMC MODE
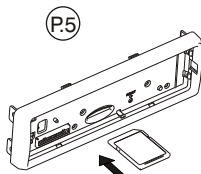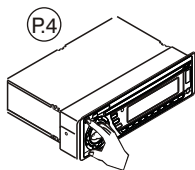
1.Press panel release button to release the front panel.(P.4)

2.The SD/MMC card slot is located on top of the front panel as indicated in (P.5).

3. Insert the SD/MMC card into the card slot in the correct direction until a "CLICK" sound is heard.

4.Close the front panel.

5. The display will show "SD PLAY" to indicate that the SD or MMC card is correctly inserted. Once the SD or MMC card is inserted, the MP3 file will automatically loaded & playback will also start.

6. Does not matter the unit is in what mode (Tuner,CD, USB, etc), once a SD or MMC card is being inserted in the unit, unit will automatically switch to SD / MMC mode.

7. All the SD / MMC files playback function is same as normal CD or MP3 disc playback.

TO STOP SD/MMC CARD PLAYBACK

1.Push on the end of the SD or MMC card to eject the sd or MMC card. Once the SD or MMC card is taken out, the unit will automatically switch to previous mode.

2.User can use the mode button to choose SD / MMC mode (only if SD or MMC is inserted in the unit) or any other modes, when they are in any mode.

SD/MMC SPECIFICATION
* SUPPORT MAX 1G SD/MMC CARD
* SUPPORT MAX 255 SONGS

CAUTION

2.Please make sure to insert the SD or MMC card in the correct direction / orientation as indicated in picture 6(P.6). Wrong insert will cause permanent & serious damage to the unit & the SD or MMC card.

Front side   Back side
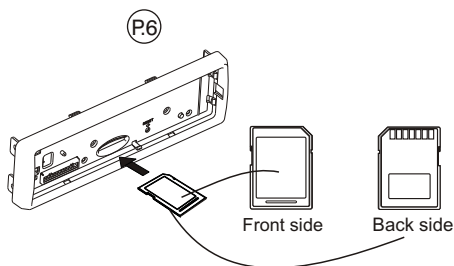
MP3 OPERATIONS

Notes :

- An MP3 directory is shown in this manual as "Directory", and an MP3 file is shown as "Track".
- Maximum length of file name : 28 characters.
- Maximum length of directory : 16 characters.
- Maximum number of tracks per disc : 254.
- Maximum number of directories per disc : 128.
- Sampling Frequencies support : 32KHz, 44 KHz, 48KHz.
- Bit Rates support : 64 - 320KHz including VBR.
- Supports Multi-Session recording.
- Supports CD, CDR and CDRW. (Playback of MP3, CD-R and CD-RW may depend on recording conditions)
- Disc written by Packet Write (UDF) is not supported.
- Supports Max 255 songs for MP3 Disc, USB device or SD/MMC Card.

LOADING CD

Insert the CD as usual, if it is an MP3 CD, the display will show "MP3 T01" then the message "READING" will appear, when disc scanning completed, the first track on the first directory will play.

NAVIGATING THROUGH DIRECTORIES AND TRACKS

There are four ways to select your favorite track/directory

(1) By track Number

A) Under MP3 play mode, press MP3 Menu button once, the display shows "MP3 T*", enter the desired track number directly, then press MP3 Enter button to confirm. The distribution of the number are listed as follow:

Number	1	2	3	4	5	6	7	8	9	0
Button	M1	M2	M3	M4	M5	M6	SCAN	DSP	MUTE	DISP

B) Turn the Encoder Volume knob to skip the current track.

(2) By directory or Track Name

Under MP3 Play Mode, press MP3 Menu button twice, the display shows " * " , enter the name directly, Press Mp3 Enter button to confirm. The distribution of alphabetical characters are listed as follow :

Button	M1	M2	M3	M4	M5	M6	MODE	TUN DN	TUN UP	DISP	SEL	VOL UP/DN
Character	A,B,C	D,E,F	G,H,I	J,K,L	M,N,O	P,Q,R	S,T,U	V,W,X	Y,Z, Space	_,-,+	Move Cursor	Next/Previous Character

If partial directory/Track name is entered, then all directory/Track with matched characters are displayed, Turn the Encoder Volume knob to go through the list, press MP3 Enter button to confirm.

If directory name is selected, the display will show " \\",under this condition, Turn the Encoder Volume knob to select the tracks under the directory, press MP3 Enter button to confirm.

(3) To select directory first

Under MP3 play mode, press MP3 Menu Button three times, Then the first directory name is shown.

Turn the Encoder Volume knob to navigate through the directory list, press MP3 Enter button to select the desired directory. The display will show " \\ ". Turn the Encoder Volume knob to select the tracks under the selected directory, press MP3 enter button to confirm when desired track is found.

(4) Navigating through Directory directly

Press Directory Up(M6) or Directory Down buttons(M5) to skip the current Directory forward or backward by one position.

In a multi-level directories disc, the movement will take place at the current level until the last directory is reached.

The next directory down operation will move the position down by one level.

ID3 TAG

Press DISPLAY button repeatedly to Display ID3 TAG information.
If the MP3 file is available with ID3 TAG, pressing the display button repeatedly will show information in the following sequence:
SONG TITLE > ARTIST> ALBUM TITLE
If any of the ID3-TAG information is not available, pressing the DISPLAY button repeatedly will show information in the following sequence:
UNKNOWN SONGNAME> UNKNOWN ARTIST> NO ALBUM TITLE
If the MP3 file is without ID3 TAG, pressing the DISPLAY button, & "NO ID3 TAG" will be displayed.
The file name & track number of the MP3 file will scroll repeatedly through the display during the playing of the MP3 file.

SPECIFICATIONS

CD PLAYER

System	Compact disc audio system
Usable disc	Compact disc, CD-R, CD-RW (AUDIO/MP3 format)
Sampling frequency	44.1KHz
No of quantization bits	1bit
Frequency	5-20,000Hz
Number of channels	2 stereo
S/N Ration	70dB

RADIO SECTION
FM

Frequency Range	87.5 - 107.9 Mhz(USA)
	87.5 - 108 Mhz(Europe)
Intermediate Frequency	10.7 MHz
Usable Sensitivity	Better than 15dB at S/N 30 dB
Stereo Separation	25 dB at 1KHz
S/N Ratio	50 dB

AM (MW)

Frequency Range	530 - 1710 Khz(USA)
	522 - 1620 Khz(Europe)
Intermediate Frequency	450KHz
Usable Sensitivity	Better than 45dB
S/N Ratio	40 dB

GENERAL

Power Supply	DC 11 -14V
Polarity	Negative Ground
Speaker impedance	4 ohms
Power Output	60W x 4

REMARK :
Specifications subject to change without notice.

TROUBLE SHOOTING

Before going through the check list, check wiring connection. If any of the problems persist after check list has been made, consult your nearest service dealer.

Symptom	Cause	Solution
No power	The car ignition is not on.	If the power supply is properly connected to the car accessory terminal, switch the ignition key to "ACC"
	The fuse is blown.	Replace the fuse.
Disc cannot be loaded or ejected	Presence of CD disc inside the player.	Remove the disc in the player, then put a new one.
	Inserting the disc in reverse direction.	Insert the compact disc with the label facing upward.
	Compact disc is extremely dirty or defective disc.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Cool off or until the ambient temperature returns to normal.
	Condensation.	Leave the player to off for an hour or so, then try again.
No sound	Volume is in minimum.	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
The operation keys do not work	The built-in microcomputer is not operating properly due to noise.	Press the RESET button. Front panel is not properly fixed into its place
Sound skips.	The installation angle is more than 30 degrees.	Adjust the installation angle to less 30 degrees.
	The disc is extremely dirt or defective disc.	Clean the compact disc. Then try to play a new one.
The radio does not work. The radio station automatic selection does not work.	The antenna cable is not connected.	Insert the antenna cable firmly.
	The signals are too weak.	Select a station manually.
ERROR 1	Mechanism Error	Press the reset button if the error code does not disappear, consult your nearest sevice dealer.
ERROR 2	Servo Error	Press the reset button if the error code does not disappear, consult your nearest sevice dealer.